

Non - Hodgkins Lymphoma of Small Intestine Causing Ileo - Colic Intussuception in Old Age Female: A Case Report

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Abstract: ***Objective:** Intussusception is a rare but significant cause of small bowel obstruction in adults, often linked to an underlying condition. Among these, involvement of the ileum by lymphoma is particularly uncommon. CT scanning is highly effective in diagnosing intussusception in adults, providing detailed pre - operative evaluation including assessment of any extension or dissemination, especially in cases involving intestinal lymphomas. Surgical intervention is typically required to address the obstruction, with pathological examination of resected tissue essential for confirming the diagnosis. **Methods:** We report a rare case of intestinal intussusception caused by lymphoma affecting the terminal ileum in a 63 - year - old woman. The diagnosis of intussusception was confirmed by computed tomography, and subsequent surgical intervention led to the histological diagnosis of non - Hodgkin's lymphoma. **Results:** Primary intestinal lymphomas are different from gastric lymphomas in presentation, management and prognosis. They are not well defined and the exact concepts for their diagnosis and treatment are absent. **Conclusion:** The objective of this unusual case report is to illuminate non - Hodgkin's lymphoma (NHL) affecting the small bowel, focusing on its clinical and radiological diagnosis, as well as its treatment, particularly when presenting with intussusception in adults.*

Keywords: Gastrointestinal lymphoma; Intussusception; Intestinal obstruction; non Hodgkin's lymphoma; Primary intestinal tumour

1. Background

Intussusception in adults is a rare condition, constituting only 5% of cases, where a segment of bowel telescopes into an adjacent segment, often pulling the associated mesentery along with it. Among the different malignancies that can cause intussusception, lymphoma is infrequently reported and mainly discussed in isolated case reports. Understanding the potential seriousness of underlying malignancies is crucial in these cases.

Continued documentation of these rare occurrences is essential for enhancing our understanding of their disease mechanisms, clinical presentations, and treatment strategies. Non - Hodgkin's lymphoma (NHL) can manifest either as a primary disease of lymph nodes or as an extranodal malignancy. Over half of NHL patients initially present with some form of extranodal involvement, which can affect multiple organ systems.

While gastrointestinal tract involvement occurs in 10% to 30% of NHL cases, the specific occurrence of bowel intussusception in adults due to NHL

2. Case Presentation

A 63 - year - old woman presented with nonspecific pain localized to the right iliac fossa region over the past week, without radiation or exacerbating factors. On examination, she appeared thin and nontoxic, with a soft abdomen that was tender in the right lower quadrant with localized guarding.

There were no other significant physical findings. Initial laboratory tests revealed a normal white blood cell count.

A computed tomography (CT) scan showed ileocolic intussusception, where the terminal ileum had telescoped into the caecum and ascending colon. The scan indicated diffuse asymmetrical thickening of the terminal ileum wall, accompanied by surrounding fat stranding and multiple enlarged mesenteric lymph nodes.

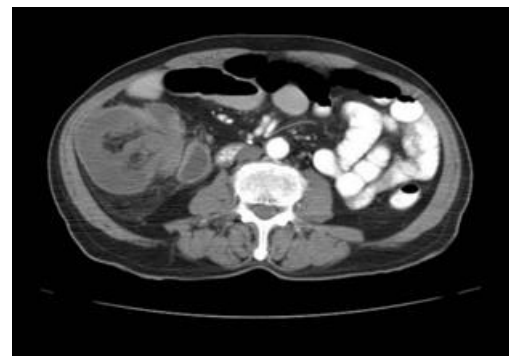


Figure 1: The CT scan revealed ileocolic intussusception, where the terminal ileum had moved into the caecum and ascending colon. The imaging also showed diffuse, uneven thickening of the terminal ileum's wall, with surrounding fat stranding, and multiple mesenteric lymph nodes were enlarged.

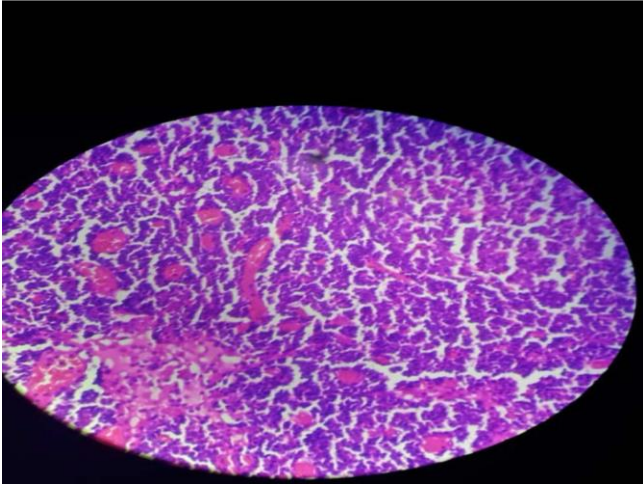


Figure 2: The histopathological slide exhibits sheets of large lymphoid cells characterized by an increased nuclear - cytoplasmic ratio, prominent 1 - 2 nucleoli within each cell, and scant cytoplasm



Figure 3: In the terminal ileum, there is a segment approximately 14 cm in length where two polyps are telescoping into the caecum. The larger polyp measures 5.0 cm in size, while the smaller one measures 2.0 cm. The appendix measures 6.0 cm and appears normal without any notable abnormalities. Additionally, small lymph nodes were observed in the mesenteric fat.

3. Treatment

An ileo - caecal en bloc resection was performed, followed by restoration of continuity through an ileo - transverse side - to - side anastomosis (Figure 2). Examination of the specimen revealed a tumor located in the terminal part of the ileum along with mesenteric lymph node enlargement. The procedure proceeded without complications, and the patient was discharged on the fifth day after surgery.

Histological analysis of the specimen showed sheets of large lymphoid cells with an increased nuclear - cytoplasmic ratio, prominent 1 - 2 nucleoli, and scant cytoplasm. The presence of an elevated number of mitotic figures was also noted. Submucosal lymphoid masses were observed beneath attenuated intestinal mucosa. The resected margins (ileum

and colon) appeared normal without significant findings. Additionally, other small lymph nodes retrieved from the mesenteric fat exhibited reactive changes.

4. Discussion

Intussusception is a rare disease in adults when compared with children; one case of adult intussusception for every 20 childhood ones [3]. In infants, intussusceptions are primitive in most cases [4]; however, in adults, an organic lesion is found in 80% of cases mostly in the benign and malignant disease in the ileum and the colon. These organic lesions are represented by the Gastrointestinal stromal tumours (GIST), lipomas, polyps, or adenopathy especially in the ileocecal localization [5]. Concerning the intestinal intussusceptions, it is defined by the telescoping and penetration of an intestinal segment in the downstream segment. Its evolutionary mode is usually sub - acute or chronic. Anatomically, in adults and regardless of the cause, the ileum is regarded as a preferential area of intussusceptions. The Colo - colic intussusceptions present only 27% of cases and the colorectal forms are rarer [6]. The hyperperistalsis result from the presence of a pedunculated or non - pedunculated mass acted on an intestinal segment. Hyperperistalsis would be triggered by neurovegetative reflexes and would be responsible for the formation of the width of intussusception which is the anatomic functional condition for the establishment of intussusceptions [7, 8].

Radiological diagnosis of intussusception especially the ileo - ceocal one caused by lymphoma can be suspected in ultra sonography which can show a typical image of intussusception, but the computed tomography (CT) appearance of it is characteristic. It helps diagnose obstructive syndrome, its mechanism, the presence of the intussusception, its precise location and show its causes. It can also detect the organic cause in 71% of cases [9]. The most common finding in CT is a thickened segment of bowel with an eccentrically placed crescent - like fatty area, representing the intussusception and the intussuscepted mesentery. They appear either as a round target mass or as an oblong sausage shaped mass. Another common finding is a rim - shaped accumulation of contrast material in the periphery of the mass. In addition, air bubbles in the uppermost part of the intussusception can be observed in some cases [10]. The role of CT is more important in cases of suspected abdominal lymphoma and polyps. It can objective a thickening of the wall associated with digestive adenopathy in lymphoma or a tissue density in the event of polyp. Appropriate management of primary small bowel lymphoma is, therefore, still under discussion. One aspect of this discussion is that the surgical approach is necessary. Another aspect is that surgery is necessary but in combination with chemotherapy. According to few cases and to the absence of randomized trials in primary small bowel lymphoma, the optimal treatment strategy is not known [5]. However, the treatment of intussusceptions is always surgical, and the resection may be necessary to some extent [11]. If contraindications of laparoscopy are not present, laparoscopic resection can be performed safely and should be considered for diagnosis and treatment for intussusception in ileocecal lesions in adults. The most important rule in treatment is the avoidance of tumour emboli spread during manipulation [12]. If the

primary small bowel lymphoma is diagnosed before or at laparotomy, surgical resection should be preferred to limit the risk of serious complications, such as perforation, bleeding, and obstruction. In early - stage patients, complete resection surgery is more advantageous in some reports [13 - 15].

5. Conclusion

Small case series and retrospective studies have provided limited insights into small bowel lymphomas. Unlike gastric lymphomas, where diagnostic and treatment advancements have been made in recent years, primary small bowel lymphomas remain poorly characterized. There is a significant gap in understanding their clinical diagnosis and optimal management strategies.

Nevertheless, when ileal non - Hodgkin's lymphoma (NHL) is detected due to intussusception in adults, surgical intervention is typically necessary. However, combining surgery with chemotherapy is often preferred to achieve comprehensive treatment outcomes. This approach aims to address both the local tumor burden and any potential systemic involvement, improving the overall prognosis for affected individuals.

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